LISTING OF AND AMENDMENTS TO CLAIMS:

1. (currently amended) Apparatus ~~(101)~~ for determining a pulse position for a signal encoded by pulse modulation, the signal comprising a first component ~~(PCS)~~ and a second component ~~(DCS)~~, the apparatus comprising:

a determination unit ~~(118)~~ comprising a probability table ~~(110)~~ for providing a value ~~(DDS)~~ representative of the pulse position in response to receipt of at least one symbol of the first component ~~(PCS)~~ and at least one symbol of the second component ~~(DCS)~~, wherein the first component is a first received signal having a first signal quality measure and the second component is a second received signal having a second signal quality measure, said probability table being an asymmetric probability table when said first signal component has a better quality measure than said second signal component, and said probability table being a symmetric probability table when said first signal component has an equal quality measure to said second signal component.

2. (currently amended) Apparatus according to claim 1 further comprising a first storage unit ~~(102)~~ for storing at least one symbol of the first component ~~(PCS)~~ and a second storage unit ~~(104)~~ for storing at least one symbol of the second component ~~(DCS)~~.

3. (currently amended) Apparatus according to claim 1, wherein the pulse position ~~(DDS)~~ is the most-likely pulse position.

4. (canceled)

5. (previously presented) Apparatus according to claim 1, wherein the probability table comprises a diagonally asymmetric table.

6. (currently amended) Apparatus according to claim 5, wherein in the case that the first component ~~(PCS)~~ shows a legal symbol then the second component ~~(DCS)~~ has no influence on the value.

7. (currently amended) Apparatus according to claim 1, wherein the quality of the first component ~~(PCS)~~ is better than that of the second component ~~(DCS)~~.

8. (previously presented) Apparatus according to claim 1, wherein the probability table comprises a diagonally symmetric table.

9. (currently amended) Apparatus according to claim 1, wherein the probability table ~~(110)~~ comprises more than two dimensions.

10. (currently amended) Apparatus according to claim 1, wherein the probability table ~~(110)~~ is storable in a memory ~~(118)~~, such as a read only memory ~~(ROM)~~ and/or a random access memory ~~(RAM)~~, and wherein two or more probability tables ~~(110)~~ are usable.

11. (currently amended) Apparatus according to claim 1, wherein the determination unit ~~(118)~~ derives the pulse

position ~~(DDS)~~ by a prestored formula, preferably a probability based formula, whereby the at least one symbol of the first component ~~(PCS)~~ and the at least one symbol of the second component ~~(DCS)~~ represent signal values for input to the formula.

12. (canceled)

13. (currently amended) Apparatus according to claim 25, wherein the means ~~(122)~~ for detecting an illegal symbol are logic circuits ~~(122)~~ or an extension of the probability table ~~(110)~~.

14. (original) Apparatus according to claim 1, wherein the signal comprises an infrared signal.

15. (canceled)

16. (currently amended) A method for determining a pulse position for a signal encoded by a pulse modulation, the signal comprising a first component ~~(PCS)~~ and a second component ~~(DCS)~~, the method comprising ~~the step of~~:

providing, via a probability table ~~(110)~~, a value ~~(DDS)~~ representative of the pulse position in response to receipt of at least one symbol of the first component ~~(PCS)~~ and at least one symbol of the second component ~~(DCS)~~, wherein the first component is a first received signal having a first signal quality measure and the second component is a second received signal having a second signal quality measure, said probability table being an

asymmetric probability table when said first signal component has a better quality measure than said second signal component, and said probability table being a symmetric probability table when said first signal component has an equal quality measure to said second signal component.

17. (currently amended) A method according to claim 16, further comprising the steps of storing at least one symbol of the first component ~~(PCS)~~ and storing at least one symbol of the second component ~~(DCS)~~.

Claims 18, 19, 20 and 21 (all canceled).

22. (currently amended) A computer program comprising program code means for performing, when said program is run on a computer, a method for determining a pulse position for a signal encoded by a pulse modulation, the signal comprising a first component ~~(PCS)~~ and a second component ~~(DCS)~~, the method comprising:

providing, via a probability table ~~(110)~~, a value ~~(DDS)~~ representative of the pulse position in response to receipt of at least one symbol of the first component ~~(PCS)~~ and at least one symbol of the second component ~~(DCS)~~, wherein the first component is a first received signal having a first signal quality measure and the second component is a second received signal having a second signal quality measure, said probability table being an asymmetric probability table when said first signal component has a better quality measure than said second

signal component, and said probability table being a symmetric probability table when said first signal component has an equal quality measure to said second signal component.

23. (currently amended) A computer program product comprising program code means stored on a computer readable medium for performing, when said program is run on a computer, a method for determining a pulse position for a signal encoded by pulse modulation, the signal comprising a first component ~~(PCS)~~ and a second component ~~(DCS)~~, the method comprising:

providing, via a probability table ~~(110)~~, a value ~~(DDS)~~ representative of the pulse position in response to receipt of at least one symbol of the first component ~~(PCS)~~ and at least one symbol of the second component ~~(DCS)~~, wherein the first component is a first received signal having a first signal quality measure and the second component is a second received signal having a second signal quality measure, said probability table being an asymmetric probability table when said first signal component has a better quality measure than said second signal component, and said probability table being a symmetric probability table when said first signal component has an equal quality measure to said second signal component.

24. (currently amended) Apparatus ~~(101)~~ for determining a pulse position for a signal encoded by pulse modulation,

the signal comprising a first component ~~(PCS)~~ and a second component ~~(DCS)~~, the apparatus comprising:

a determination unit ~~(110)~~ comprising a probability table ~~(110)~~ for providing a value ~~(DDS)~~ representative of the pulse position in response to receipt of at least one symbol of the first component ~~(PCS)~~ and at least one symbol of the second component ~~(DCS)~~, wherein the probability table ~~(110)~~ is based on Bayes' probability.

25. (currently amended) Apparatus ~~(101)~~ for determining a pulse position for a signal encoded by pulse modulation, the signal comprising a first component ~~(PCS)~~ and a second component ~~(DCS)~~, the apparatus comprising:

a determination unit ~~(110)~~ comprising a probability table ~~(110)~~ for providing a value ~~(DDS)~~ representative of the pulse position in response to receipt of at least one symbol of the first component ~~(PCS)~~ and at least one symbol of the second component ~~(DCS)~~, and

means for detecting an illegal symbol.

26. (currently amended) Apparatus ~~(101)~~ for determining a pulse position for a signal encoded by pulse modulation, the signal comprising a first component ~~(PCS)~~ and a second component ~~(DCS)~~, the apparatus comprising:

a determination unit ~~(110)~~ comprising a probability table ~~(110)~~ for providing a value ~~(DDS)~~ representative of the pulse position in response to receipt of at least one

symbol of the first component ~~(PCS)~~ and at least one symbol of the second component ~~(PCS)~~, wherein the pulse modulation comprises a four position pulse position modulation.

27. (new) Apparatus according to claim 1, wherein said pulse position is pulse position as a function of time.

28. (new) A method according to claim 16, wherein said pulse position is pulse position as a function of time.

29. (new) The computer program according to claim 22, wherein said pulse position is pulse position as a function of time.

30. (new) The computer program product according to claim 23, wherein said pulse position is pulse position as a function of time.

31. (new) Apparatus according to claim 25, wherein said pulse position is pulse position as a function of time.

32. (new) Apparatus according to claim 26, wherein said pulse position is pulse position as a function of time.

33. (new) Apparatus according to claim 1, wherein, said probability table is a first probability table when said first signal component has a better quality measure than said second signal component, and said probability table is a second probability table when said first signal component has an equal quality measure to said second signal component.